

However, the use of "on at least" broadens the claim scope such that more than one ink-receptive layer may be present.

Prior to a discussion of the inapplicability of the rejection under 35 USC 103 it will be recalled that the present patent application and claims based thereon are directed to a multilayer card comprising an opaque substrate, an ink-receptive layer and a cover layer, which is suitable for use as an ID card, magnetic card, credit card etc. The substrate comprises a polyester and from 0.2 to 30% of a copolyesterether, which is stated as improving the resistance of the card to delamination.

Claims 1, 2 and 4 to 6 stand rejected under 35 USC 103(a) as being unpatentable over Vanmaele et al., U.S. Pat. No. 5,753,352 in further in view of Kuze et al., U.S. Pat. No. 4,454,312.

The Office rejection sets forth the following conclusion:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use alkylene terephthalate in the support of Vanmaele because it is known in the art that alkylene terephthalate is excellent for use as a mechanically strong support for films, packing materials, photographic films, and other laminates. Further, alkylene terephthalate and polyethylene terephthalate are functional equivalents as shown in Vanmaele and Kuze.

Issue is taken with this position.

Initially, it is pointed out that Vanmaele USP 5,753,352 is directed to an anti-counterfeit laminated "security document" which is useful as an ID card, credit card, passport, etc., and which comprises a fluorescent dye to protect against photocopying. The multilayer structure comprises, in layer order, a support, an information carrying layer and a covering element. Either the support or the covering layer can comprise two transparent or translucent layers which are referred to as the "outer resin layer" and the "inner resin layer". The fluorescent dye is located between the inner and outer resin layers.

The support or covering element may be made of a variety of polymers, including PET (column 2, lines 50-53; and column 3, lines 35 to 54). The information carrying layer can also be made from a variety of materials, including PET (column 4, lines 47-67).

There is no mention whatsoever of the problem of the present invention, namely to improve delamination resistance. Nor is there any mention of copolyesterethers in any of the fairly lengthy lists of potential polymeric materials, either as such or as a solution to this problem. This prior art document, when taken alone, is therefore completely irrelevant to the present application.

*included use
Kuze used to
show this*

It is clear that the Office position is premised on an incorrect understanding of the chemistry. On page 4 of the Office action, it is stated:

Vanmaele does not specifically show that the support comprises at least one copolyesterether (claim 1) such as an alkylene terephthalate (claim 2)".

It is necessary to point out that an alkylene terephthalate is not an example of a copolyesterether and that the backbone of a copolyesterether comprises repeating units of an ester such as an alkylene terephthalate and repeating units derived from an alcohol or ether such as a poly(alkylene oxide) glycol.

The Office rejection combines the Vanmaele reference with Kuze U.S. Patent 4,445,312 which discloses a polyester film comprising zirconium as an internal particle material, which provides a film having good transparency and slip characteristics (column 2, lines 23-27). The Office rejection references column 2, lines 31-51 of Kuze which recites possible dicarboxylic acids and glycols for manufacture of the polyester. The polyester must comprise at least 80 mol% of alkylene terephthalate. It is necessary to point out that although the remaining 20 mol% of the polymer may be made up of other monomeric units, the backbone is still made up of ester linkages, i.e. the polymer is a polyester and not a copolyesterether.

It is noted that the Office Action has not actually identified the only part of this document which could be considered as of any possible relevance. At column 2, lines 45 to 47, the document states that:

"The polyester may include further any other monomeric units which can form amide bond, urethane bond, ether bond, carbonate bond, etc." [emphasis added]

Thus, it is within the general scope of Kuze to use a copolyesterether as the layer polymer. There is, however, no explicit mention of copolyesterethers, or of any other copolymer, in this prior art. The examples are concerned with polyesters only. The passing reference at column 2, lines 45 to 47 is the only mention in the whole document of polymers which may contain a proportion of non-ester linkages.

It should also be noted that Kuze does not propose the use of such copolymers in addition to the base polyester, as in the present invention.

There is no mention of multiple-layer structures and no mention that a copolyesterether could be of use to improve delamination resistance. There would be no motivation

vs - search

intended use

whatsoever for the skilled person to combine the prior art of Vanmaele and Kuze and even if he did there is nothing to motivate him to add a copolyesterether into a support layer for the purpose of improving delamination resistance or, for that matter, any other purpose. In addition, there would have been no motivation for the skilled person to select a copolyesterether from the list of non-ester linkages in column 2, lines 45 to 47 of Kuze.

Claims 3-6 stand rejected under 35 USC 103(a) as being unpatentable over Vanmaele et al., U.S. Pat. No. 5,753,352 in further in view of Parker, U.S. Pat. No. 3,793,029.

The Office rejection sets forth the following conclusion:

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the security document of Vanmaele with the polyglycols of Parker because it is known that such a copolyesterether provides mechanical strength and flexibility to film supports.

In response, the deficiencies of Vanmaele have been previously set forth. The secondary Parker publication does not cure the inapplicability of Vanmaele. Briefly, polyesters generally and PET in particular are mentioned in the Parker prior art as a photographic support (column 2, lines 1 to 37). Other polymeric materials are mentioned at column 2, lines 38 to 45. There is no mention of copolyesterethers. Alkylene oxide polymers are mentioned in column 5, lines 36 to 65, but there is no suggestion that these alkylene oxide polymers are even used in the same layer as a polyester, much less in the same polymer backbone to form a copolyesterether. There is no suggestion that such copolymers impart advantages of delamination resistance.

Claim 7 stands rejected under 35 USC 103(a) as being unpatentable over Vanmaele, et al., U.S. Pat. No. 5,753,352 in further in view of Kuze et al., U.S. Pat. No. 4,454,312 and in further view of Parker, U.S. Pat. No. 3,793,029. The Office rejection sets forth a position:

Vanmaele does not show that the laminating elements (ink-receptive layers) are present on both sides of the support as in instant claim 7. However, absent any evidence from the contrary, it is obvious to provide ink-receptive coatings on both sides of a support, motivated by the desire of providing ink-receiving properties to both sides (i.e., to enable the printing of both sides of the medium).

*overcomes the
duplication
allowed*

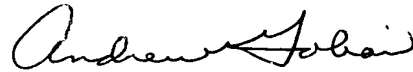
In answer, such conclusion is unsupported. One of ordinary skill in the art would not modify Vanmaele in the manner required in the Office action.

Applicants take issue with the combination of the three publications under 35 USC 103(a). The deficiencies of these publications have been set forth above in traversal of

rejections of the other claims under prosecution. The added combination of publications likewise must fail for the reasons previously set forth.

In summary, applicants have conformed to the Office position concerning a restriction requirement. However, traversal has been made opposite the rejections under 35 USC 112 and 35 USC 103. Removal of all rejection is requested. A notice allowance is solicited.

Respectfully submitted,



ANDREW G. GOLIAN
ATTORNEY FOR APPLICANTS
REGISTRATION NO. 25,293
TELEPHONE: (302) 892-0747
FACSIMILE: (302) 892-7343

Dated: December 10, 2002